



RADIO REMOTE CONTROL USER AND MAINTENANCE MANUAL

WARNINGS

This manual is an essential part of the device and it should be thoroughly kept for later consultation. Carefully read the warnings contained in this manual, concerning safety and a proper preservation of the product. These warnings are ALWAYS to be carefully read before using the device. Winch Solutions Ltd declines all responsibility for any trouble arising from the non-compliance with these warnings.

- Avoid attempting to repair the device by yourself.
- Repairs performed by unskilled people can cause serious damages or failures.
- For assistance, apply to your local authorized service centre.
- Use only original spare parts.
- Always keep at a safe distance from the moving parts.
- Keep the radio control out of the children's reach

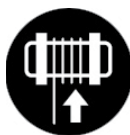
TECHNICAL FEATURES

- Number of command: 2
- Frequency bands: ISM 868/915 MHz
- Power supply: N°2 "AAA" 1,5 batteries
- Absorption at rest: ~ 1 µA
- Average absorption in transmission: 14 mA
- Maximum range in an open field: 100 ÷ 150 m in open field and free interference environment.
- 2 LED indicator lights
- Silicon rubber keypad (grade of enclosure IP67)
- Operating temperature: -20°C to +70°C
- Dimension (in mm): 109 x 56 x 30
- Weight (with batteries): 120 g

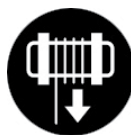
INSTRUCTIONS FOR USE

For correct use and in order to avoid damage to people or things, it is obligatory to follow these instructions:

1. Power up the receiver and wait a few seconds (the receiver takes a couple of seconds to be able to operate as it carries out a self-diagnosis).
2. Press START to allow the system to receive the transmission (the system will stay active for 2 minutes after the last control has been given, after which it resets. Then press START again to restart the system).
3. Press the required key on the transmitter to activate the related output on the receiver.



IN



OUT

4. Press the STOP key to inhibit the controls reception. In this phase all the controls are reset. To activate the system again press START.

LED INDICATOR ON THE TRANSMITTER

REGULAR FUNCTIONING (GREEN LED)

During standard operation of the transmitter, the GREEN led flashes when any key is pressed. Holding down any key will result in the GREEN led flashing every 3 seconds.

LOW BATTERY (RED LED)

When the battery is low (2,5V), the RED led will flash whilst any key is pressed. At this point, we suggest you replace the battery. If the voltage reaches 2,2V, the RED led will stay on whilst any key is pressed.

NB: DO NOT LEAVE FLAT BATTERIES INSIDE THE TRANSMITTER.

SYSTEM CODING

Coding system is an operation that is only necessary when the receiver has to be replaced or you want to use it with a different radio remote control from the one it is coupled with at the time of purchase.

TO RECODE THE SYSTEM REFER TO THE RECEIVER USER MANUAL.

WARNING ALARM

LED	Appearance	Meaning
GREEN LED	Flash	Key pressed
	Flash every 3 sec.	Key always pressed
	Flash every 1 sec.	Absence of link radio
	Flash twice every 1 sec.	Loss of link radio
RED LED	Flash every 1 sec.	Flat batteries (<2,5V)
	On	Flat batteries (<2,2V)

The warning alarms only show when a key is pressed. If no keys are pressed, the LEDs stay off.

REPLACING THE BATTERIES IN THE TRANSMITTER

If the red LED on the handset flashes when the key is held down, it means that the batteries are almost flat (<2,5 V). In this situation, replace the batteries as soon as possible since the system performance may be impaired. When the voltage reaches values lower than 2,2 V, the red LED stays on when the key is pressed. In this situation, replace the batteries, as it is not possible to give commands to the output ports.

To replace the batteries follow these instructions:

1. Obtain 2 "AAA" 1,5V alkaline batteries.
2. Open the battery compartment by unscrewing the two screws (figure 1).
3. Remove the flat batteries from their holder (figure 2).
4. Insert the new batteries paying attention to the polarity shown on the end. Before going ahead with closing the battery compartment, make sure the green LED emits a flash each time a key is pressed.
5. After checking that the transmitter is working properly, close the container and screw back on the two screws indicated at point 2.



Figure 1

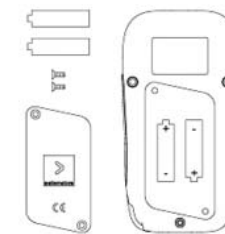
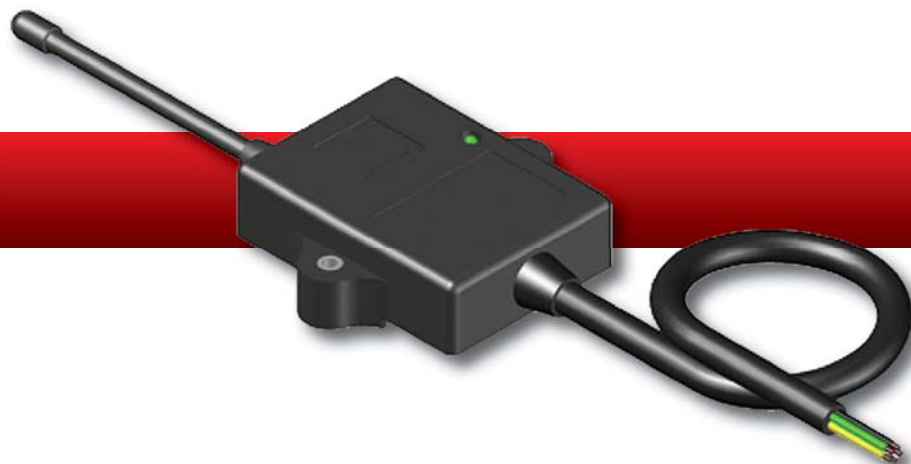


Figure 2

THE REMOTE CONTROL CONTAINS MINIATURIZED ELECTRONIC CIRCUITRY, AND SO WE RECOMMEND TAKING GREAT CARE WHEN FOLLOWING THE INSTRUCTIONS FOR REPLACING THE BATTERIES, HANDLING THINGS DELICATELY IN A CLEAN AREA.

IT IS NOT ADVISABLE TO USE CARBON-ZINC BATTERIES AS THEY CAN UNDERGO SELF-DISCHARGE MORE RAPIDLY THAN ALKALINE ONES.

DO NOT USE RECHARGEABLE BATTERIES.



RADIO REMOTE CONTROL 2 COMMAND USER AND MAINTENANCE MANUAL

WARNINGS

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- Do not travel with the device switched on.
- Connect the system only to the vehicle's battery.
- Before carrying out any mechanical maintenance operation (welding) on the vehicle, disconnect the battery clips.
- Avoid attempting to repair the device by yourself. Repairs performed by unskilled people can cause serious damages or failures. For assistance, apply to your local authorized service centre.
- Use only original spare parts.
- Always keep at a safe distance from the moving parts.

TECHNICAL FEATURES

- Number of outputs: 2
- Frequency bands: ISM 868/915 MHz
- Microprocessor electronics control.
- Dimensions: 190 x 83 x 22 (with antenna).
- Grade of enclosure: IP67.
- 12/24 VDC (10-30 allowed) rating power supply through connection to the vehicle's battery.
- Typical quiescent current:- 18 mA a 12 V; - 14 mA a 24 V.
- Integral resettable fuse: 7 A
- Maximum suppliable current for each channel: 5 A
- Maximum total suppliable current: 7 A
- Receiver category (EN 300-220-1): 2
- Protection of battery inversion polarity.

SYSTEM CODING

It is necessary to code the system only if you have to replace the transmitter unit or if you want to use it with a different receiver from the one it was purchased with.

Follow the instructions to code the system.

1. Take the power supply off the receiver.
2. Disconnect the white or gray cable from negative pole of the battery and connect it to the positive pole of the battery.
3. Put power into the receiver. The led on the receiver start to blink.
4. Press any 3 keys at the same time on the radio control transmitter within 15 seconds since it has been switched on (also more times if it is necessary).
5. At this point, the coding occurred. The led on the receiver turn off.
6. Take the power supply off the receiver.
7. Disconnect the white or gray cable from positive pole of the battery and connect it to the negative pole of the battery.
8. Put power into the receiver with the connector inserted to verify correct operation (press key START on the transmitter and abilitate the outputs).

INSTRUCTIONS FOR WIRING CONNECTION

5 WIRE CONNECTION	
WIRE	FUNCTION
Green	OUT 1
Yellow	OUT 2
White	Pairing
Red	+ Alimentation
Black	- Alimentation

NOTE: It is necessary to connect the white cable with the black cable to the negative pole of the battery.

To operate from the transmitter, consult the user manual of the transmitter coupled with the receiver.

7 WIRE CONNECTION	
WIRE	FUNCTION
Green	OUT 1
Yellow	OUT 2
White	Master Output
Pink	Emergency Output
Grey	Pairing
Red	+ Alimentation
Black	- Alimentation

NOTE: It is necessary to connect the grey cable with the black cable to the negative pole of the battery.

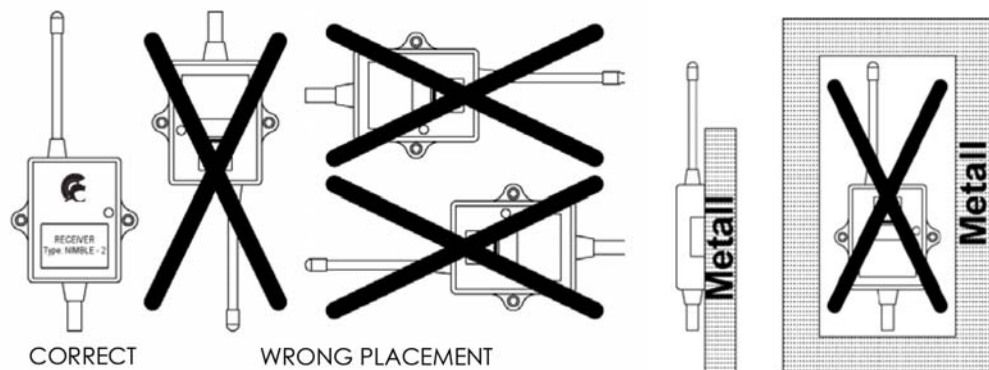
POSITIONING OF THE RECEIVER UNIT, DIMENSION AND DRILLING TEMPLATE

For a proper functioning, locate the receiver type CENTURION with the cable output downwards, as shown in the picture below.

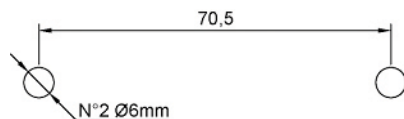
The receiver is provided with an integrated antenna; be sure to locate it at sight, not inside any metal box or screened by ferrous masses (ex. protection carter...)

For the receiver installation use supplied fixing screw (or equivalent).

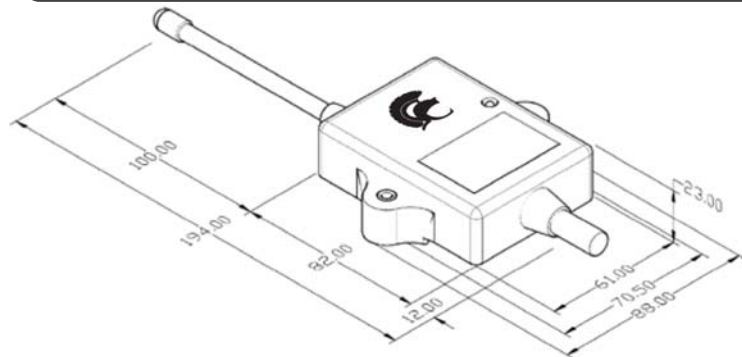
POSITIONING OF THE RECEIVER NIMBLE



DIMENSION DRILLING TEMPLATE NIMBLE



DIMENSION BOX RECEIVER NIMBLE

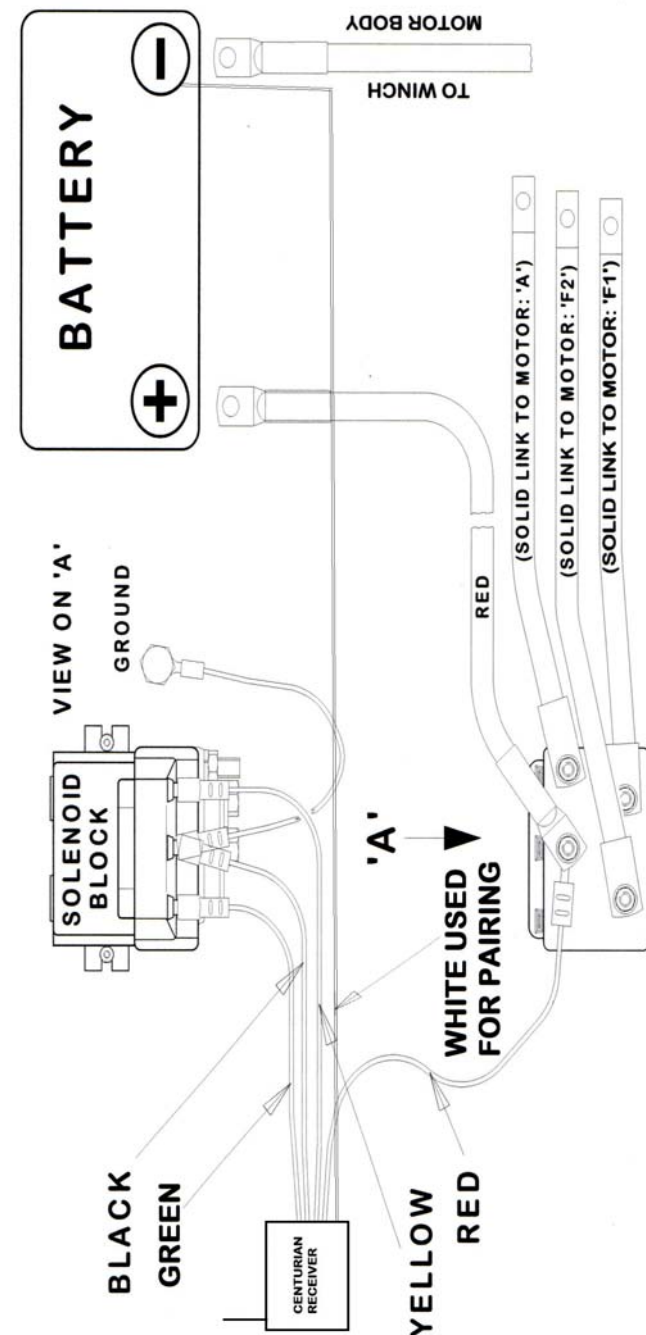


FUSE

The system is automatically protected from power overload and from possible short-circuit on corresponding outputs by an internal resettable fuse (7A).

REMOTE TO CONTACTOR BLOCK WIRING

ENCLOSED SOLENOID WIRING SERIES WOUND MOTOR



TROUBLESHOOTING

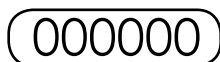
RADIO REMOTE CONTROL

PROBLEM	POSSIBLE CAUSES	SOLUTION
GREEN LED light does not shine when key is pressed.	Flat Batteries	Replace the remote control batteries. (See 'Replacing the batteries in the Transmitter')
System does not respond to the controls.	Flat Batteries	See above.
	Incorrect replacement of batteries.	Check that the batteries have been inserted correctly.
	System not coded.	Re-code the system. (See 'System Coding')

RECEIVER UNIT

PROBLEM	POSSIBLE CAUSES	SOLUTION
System does not respond to the controls.	Absence of power in the receiver unit.	Check the emergency mushroom button on the transmitter is in the release position. Check the vehicle battery is correctly connected to the receiver unit.
	Incorrect connection of the cabling to utilities.	Check the cabling to the users (indicators, electro-valves etc.)
	Incorrect installation of the receiver.	The receiver must not be shielded by ferrous masses (see "Positioning the receiver unit")
	System not coded.	Re-code the system (see "System Coding")

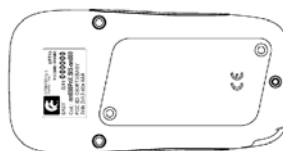
PRODUCT IDENTIFYING LABELS



Product serial number.



nnnnn: Product model
S/N: Product serial number
Cod.: Product identification code



INTERNAL LABEL

EXTERNAL LABEL

EXTERNAL LABEL ON TRANSMITTER

CE MARK



This product may be subjected to usage restriction.

FCC STATEMENTS

These devices complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions:

1. These devices may not cause harmful interference and
2. These devices must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to these equipment. Such modifications could void the user's authority to operate the equipment.



NIMBLERTX label example
FCC ID: O8lnnnnnnn



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